

REMARKS OF
COMMISSIONER GEOFFREY STARKS
COMMERCIAL SPACEFLIGHT FEDERATION WEBINAR

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Good afternoon and thank you Eric for the kind introduction. I'm excited to speak to you about the space industry and the Commission's work in space policy, particularly in advance of this Saturday's historic launch. We live difficult times – as of today, our country has lost more than 100,000 people to COVID-19 and as many as [43 million](#) Americans are out of work. Scientists and public health officials are still trying to understand this terrible disease, and regulators, community organizations and industry are all doing their best to help our country cope.

The space industry is playing an important part in this fight. Satellite imaging companies like Maxar and Planet are [helping governments](#) identify communities that need assistance and how to reach them. Satellite providers are [working](#) with medical startups to allow doctors to conduct telehealth examinations in remote areas, including diagnostic examinations of patients' ears, hearts and lungs.

The COVID-19 pandemic has magnified and exacerbated many inequities – from public health to the digital divide. For many Americans, broadband connections have allowed us to stay engaged over the last couple months even as we shelter in place. Broadband has allowed us to work from home while the kids engage in distance learning. It has enabled Zoom happy hours and video conferencing with friends and family. Some of us may have even participated in a telehealth visit with our doctors.

But for the millions of people in this country without a broadband connection at home, it's a different story. The unconnected cannot work from home or access critical public health information. They cannot see the faces of their friends and family. Their children are missing critical virtual instruction. Coupled with the closing of many public facilities, people without home broadband service are stretching even further to stay connected. Americans are sitting in library parking lots [right now](#) because the library Wi-Fi is the only way they can get online.

Unlike this devastating virus, the issue of internet inequality is not novel. For years, the FCC has reported on the problem of broadband access. According to our latest estimates, at least [18 million](#) Americans live in areas without any broadband service option. But the actual number could be [more than twice](#) that figure – an estimated 42 million Americans. Of course, even for communities where broadband service is available, many people simply can't afford it. According to one study, that figure could be as high as another [18 million](#).

The urgency of the digital divide has never been clearer, and I'm glad that many service providers are creating and expanding their affordable broadband programs. While these initiatives don't solve the affordable broadband problem for everyone, they're a good start. Yet

even these programs don't address the millions of Americans in rural and other hard-to-reach areas without broadband service.

The American space industry, however, holds tremendous potential to address this challenge through next-generation satellite broadband. The coming proliferation of small low-earth-orbit satellites promises to unleash internet connectivity with latency and speeds superior to existing satellite broadband options and competitive with cable and fiber offerings. And they will reach places that, due to difficult terrain and distance from population centers, have not shared in the benefits of expanding terrestrial networks.

American companies like SpaceX and Amazon's Project Kuiper are leading the charge to connect those on the wrong side of the digital divide. I am closely monitoring their progress, as SpaceX is already providing service to government customers and plans to begin service in Canada and the northern part of the U.S. by the end of this year, with worldwide service coming next year. And Amazon's Project Kuiper plans an extensive network of low-earth orbit satellites that would not only provide residential and commercial internet service, but mobile access as well.

These developments could help millions of people around the world and establish the United States as the leader in the satellite broadband industry, but we mustn't grow complacent. One of the lessons learned from the worldwide rollout of 5G wireless service is how quickly China has closed what was historically our clear edge in the design and manufacture of telecom network equipment. This "Made in China 2025" strategy transformed Huawei from a regional provider of cheap smartphones to one of the world's largest manufacturers of 5G equipment. As I have frequently discussed, that has come at the great expense of our network and national security.

We risk the same thing happening in space. China is developing [multiple government-backed satellite broadband providers](#) that could compete with American companies to carry traffic around the world. While the Chinese government describes [its effort](#) as focused on domestic customers, we cannot count on China's forbearance in any important technology, particularly if it might carry sensitive communications. The Commission must continue to adopt satellite policies that encourage American leadership in this area.

In addition to leadership in the space services market, but we also must lead in space sustainability, which is why a smart orbital debris policy is critical. As launch costs have dropped and miniaturization capabilities have improved, an unprecedented number of small satellites are entering orbit, with even greater numbers planned in coming years. We must ensure their safe disposition at the end of their useful lives. That's why I was pleased last month when the FCC [updated](#) its orbital debris policies for the first time in over 15 years.

It wasn't an easy road to get there. The original proposed rules included provisions regarding collision and casualty risk that departed from NASA guidance and would have effectively foreclosed the large-scale small satellite deployments essential to many new services, including satellite broadband. The draft Order would have given American satellite operators only two years to ensure that their satellites deployed above 400 kilometers had propulsion

systems. This would have required many domestic companies to undertake costly redesigns of their small satellites and placed the American space industry at a severe disadvantage.

The space industry, including this organization, nearly unanimously raised concerns with the draft, and I worked at the Commission to revise the item substantially. Among other changes, the final order adopted NASA's recommended standards for collision and casualty risk and sought comment on how to ensure small satellites have sufficient maneuverability to meet our collision avoidance standards. While I recognize that large-scale small satellite constellations may require a new regulatory approach, I also believe that the standards we adopted last month strike the right balance between safety and preserving American competitiveness. I look forward to reviewing the comments in response to our request for further input in this area, and I would appreciate hearing from you today about what else the FCC can do to encourage satellite operators to license in the United States.

The American space industry is increasingly critical to the challenges facing our nation, whether it's addressing the most challenging aspects of the digital divide, predicting natural disasters or expanding our understanding of our world. The FCC must work with other federal agencies to adopt space policies that protect safety while encouraging American innovation so we're prepared for whatever the future may hold. With the right outcomes, we could not only lead the provision of next-generation satellite broadband but set competitive conditions that drive the world. Let's learn from experience and advance American leadership in this increasingly vital field.